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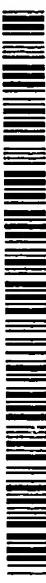
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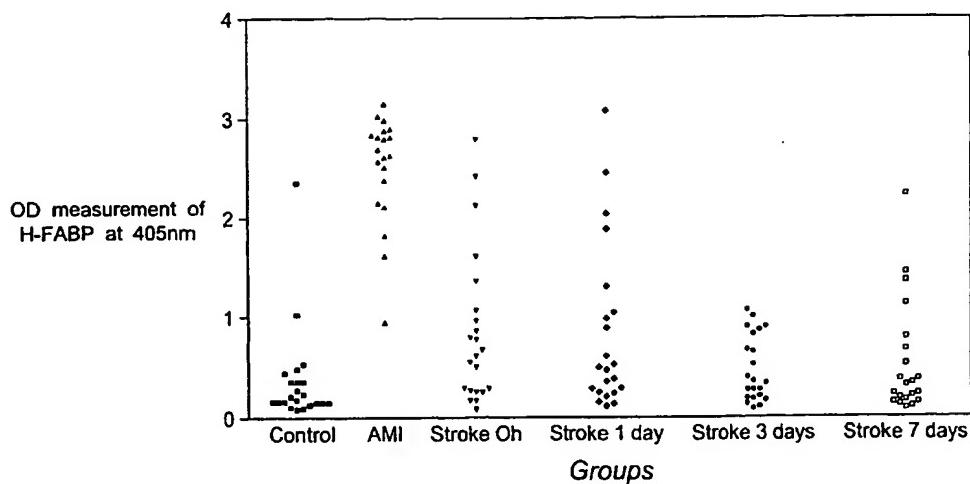
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(54) Title: **DIAGNOSTIC ASSAY FOR STROKE**



WO 01/42793 A3



(57) Abstract: Heart and brain fatty acid binding proteins (H-FABP, B-FABP) are markers for stroke. The invention provides a diagnostic assay for either of these markers, preferably by ELISA using a anti-H-FABP or B-FABP antibody. Since H-FABP is also a marker for acute myocardial infarction (AMI), to distinguish stroke from AMI requires an assay specific to AMI, e.g. using troponin-I or CK-MB as a marker, also to be carried out.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ, EPO-Internal, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| X | WO 98 45440 A (INCYTE PHARMACEUTICALS, INC.) 15 October 1998 (1998-10-15) page 28, line 23 -page 30, line 17 --- | 1,7,8 |
| A | VAN NIEUWENHOVEN, FA, ET AL.: "Discrimination Between Myocardial and Skeletal Muscle Injury by Assessment of the Plasma Ratio of Myoglobin Over Fatty Acid-Binding Protein" CIRCULATION, vol. 92, no. 10, 15 November 1995 (1995-11-15), pages 2848-2854, XP001004751 the whole document --- | 1-6 |
| A | US 5 710 008 A (JACKOWSKI, W) 20 January 1998 (1998-01-20) claims 23-34 --- | 1-3 -/- |

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Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------|
| A | GORSKI, J, ET AL.: "Increased fatty acid-binding protein concentration in plasma of patients with chronic renal failure" CLINICAL CHEMISTRY, vol. 43, no. 1, January 1997 (1997-01), pages 193-195, XP002168295 the whole document --- | 1-8 |
| A | TAKAHASHI, M, ET AL.: "Rapid and Sensitive Immunoassay for the Measurement of Serum S100B Using Isoform-specific Monoclonal Antibody" CLINICAL CHEMISTRY, vol. 45, no. 8, 1999, pages 1307-1311, XP002167762 cited in the application the whole document --- | 1-8 |
| A | SHIMIZU, F, ET AL.: "Isolation and Expression of a cDNA for Human Brain Fatty Acid-Binding Protein (B-FABP)" BIOCHIMICA ET BIOPHYSICA ACTA, vol. 1354, no. 1, 1 July 1997 (1997-07-01), pages 24-28, XP001004647 cited in the application abstract ----- | 1-8 |

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 00/12227

| Patent document cited in search report | | Publication date | | Patent family member(s) | | Publication date |
|--|---|------------------|----|-------------------------|------------|------------------|
| WO 9845440 | A | 15-10-1998 | AU | 6894298 A | | 30-10-1998 |
| US 5710008 | A | 20-01-1998 | CA | 2027434 A | 13-04-1992 | |
| | | | US | 5604105 A | 18-02-1997 | |
| | | | AU | 654672 B | 17-11-1994 | |
| | | | AU | 8475791 A | 16-04-1992 | |
| | | | BE | 1004994 A | 16-03-1993 | |
| | | | BR | 9104431 A | 09-06-1992 | |
| | | | CN | 1060533 A,B | 22-04-1992 | |
| | | | DE | 4122886 A | 16-04-1992 | |
| | | | ES | 2070658 A | 01-06-1995 | |
| | | | FR | 2667944 A | 17-04-1992 | |
| | | | GB | 2248688 A,B | 15-04-1992 | |
| | | | IT | 1251682 B | 19-05-1995 | |
| | | | JP | 2628421 B | 09-07-1997 | |
| | | | JP | 4258765 A | 14-09-1992 | |
| | | | KR | 167564 B | 30-03-1999 | |
| | | | MX | 9101550 A | 08-07-1992 | |
| | | | NZ | 239938 A | 25-03-1994 | |
| | | | US | 5290678 A | 01-03-1994 | |
| | | | US | 5747274 A | 05-05-1998 | |
| | | | US | 5744358 A | 28-04-1998 | |
| | | | AU | 5117996 A | 30-10-1996 | |
| | | | CA | 2215018 A | 17-10-1996 | |
| | | | EP | 0826151 A | 04-03-1998 | |
| | | | WO | 9632648 A | 17-10-1996 | |
| | | | JP | 10511185 T | 27-10-1998 | |
| | | | NO | 974682 A | 10-12-1997 | |
| | | | AU | 4553993 A | 13-02-1995 | |
| | | | WO | 9502612 A | 26-01-1995 | |
| | | | EP | 0710252 A | 08-05-1996 | |
| | | | ZA | 9404547 A | 17-02-1995 | |